

Chapter VIII: Glossary and Acronyms

Abutment: A structure that supports the end of a bridge.

Affected environment: Existing biological, physical, and social conditions of an area that are subject to change, both directly and indirectly, as a result of a proposed human action.

Alluvial: An adjective referring to alluvium, which are sediments deposited by erosional processes, usually by streams.

Alluvium: A general term for clay, silt, sand, gravel, or similar unconsolidated rock fragments or particles deposited during comparatively recent geologic time by a stream or other body of running water.

Alternatives: Sets of management elements that represent a range of options for how, or whether to proceed, with a proposed project. An environmental assessment analyzes the potential environmental and social impacts of the range of alternatives presented.

Backfill: Material used to replace or the act of replacing material removed during construction. Material placed or the act of placing material adjacent to structures.

Backhoe: An excavator whose bucket is rigidly attached to a hinged pole on the boom and is drawn backward to the machine when in operation.

Base: The layer or layers of material placed on a subbase or subgrade to support a surface course such as asphalt.

Bed and bank: The area below the ordinary high- water mark in a river or stream. The ordinary high- water mark is defined by the U.S. Army Corps of Engineers as the line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.

Basin: Refers to a drainage basin. A region or area bounded by a drainage divide and occupied by a drainage system. Specifically, an area that gathers water originating as precipitation and contributes it to a particular stream channel or system of channels. Synonym: watershed.

Batholith: Refers to a very large body of plutonic rock. The Sierra Nevada batholith comprises several smaller plutons that represent the repeated intrusions of granitic magma. From the Greek *bathos* (deep) and *lithos* (rock).

Bed: Refers to the relatively flat or level bottom (substrate) of a body of water, as in a lakebed or riverbed.

Benign neglect: A hypothetical management action of the No Action Alternative. A policy of taking no action instead of managing or improving the situation.

Bedload: Material (e.g., sand, gravel, and cobbles) carried by a river. It is typically suspended in the water column with high enough flow velocities, and then deposited when flow velocities slow.

Best Management Practices: Effective, feasible (considering technological, economic, and institutional constraints) conservation practices and land- and water- management measures that

avoid or minimize adverse impacts to natural and cultural resources. Best Management Practices may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

Boundaries: The areas that receive protection under the Wild and Scenic Rivers Act. Boundaries include an average of not more than 320 acres of land per mile, measured from the ordinary high-water mark on both sides of the river.

Bridge: A structure more than 20- feet long, including supports, spanning and providing passage over a depression, waterway, railroad, highway or other obstruction.

CEQ Regulations: The Council on Environmental Quality was established by the National Environmental Policy Act (see National Environmental Protection Act) and given the responsibility for developing federal environmental policy and overseeing the implementation of the National Environmental Protection Act by federal agencies.

Classifications: The status of rivers or river segments under the Wild and Scenic Rivers Act (Wild, Scenic, or Recreational). Classification is based on the existing level of access and human alteration of the site.

Cofferdams: Temporary enclosures that are pumped dry to expose the riverbed so that construction can proceed.

Comprehensive management plan: A programmatic plan to protect and enhance a Wild and Scenic River. The Merced River Plan is the National Park Service's comprehensive management plan for segments of the Merced River corridor under its jurisdiction within Yosemite National Park.

Construction limits: The limits on each side of the project, which establish the area disturbed by construction operations and beyond which no disturbance is permitted. Typically the construction limits are the same as the clearing limits.

Cultural landscape: A reflection of human adaptation and use of natural resources and is often expressed in the way land is organized and divided, patterns of settlement, land use, systems of circulation, and the types of structures that are built. The character of a cultural landscape is defined both by physical materials, such as roads, buildings, walls, and vegetation, and by use reflecting cultural values and traditions.

Culvert: Any structure not classified as a bridge that provides an opening under the roadway.

Cut line: The line along which the abutment would be separated from the bridge.

Ecosystem: An ecosystem can be defined as a geographically identifiable area that encompasses unique physical and biological characteristics. It is the sum of the plant community, animal community, and environment in a particular region or habitat.

Environmental Assessment: A public document required under the National Environmental Policy Act that identifies and analyzes activities that might affect the human and natural environment. An environmental assessment is a concise public document that provides sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement, aids an agency's compliance with National Environmental Policy Act when no Environmental Impact Statement is necessary, and facilitates preparation of an Environmental Impact Statement when one is necessary.

Environmental Impact Statement: A public document required under the National Environmental Policy Act that identifies and analyzes activities that might affect the human and natural environment.

Excavator: A piece of heavy equipment that is used to dig or scoop material with a bucket attached to a hinged pole and a boom.

Facilities: Buildings and the associated supporting infrastructure such as roads, trails, and utilities.

False work: Any temporary construction work used to support the permanent structure until it becomes self-supporting. False work includes steel or timber beams, girders, columns, piles, foundations, and any proprietary equipment including modular shoring frames, post shores, and adjustable horizontal shoring.

Finding of No Significant Impact: The public document describing the decision made on selecting the preferred alternative in an environmental assessment (see environmental assessment).

Floodplain: A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

Fluvial: Of or pertaining to a river. Fluvial is a technical term used to indicate the presence or interaction of a river or stream within the landform.

Forms: Temporary structures or molds used to retain plastic or fluid concrete in its designated shape until it hardens. Forms are required to have sufficient strength to resist the fluid pressure exerted by plastic concrete and all additional fluid pressure effects generated by vibration.

Free-flowing condition: Existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway (as defined in the Wild and Scenic Rivers Act – 16 USC 1286 [b]).

Glaciation: Effects on landforms produced by the presence and movement of a glacier.

Geomorphic: Of or pertaining to the form of the earth or of its surface features.

Geomorphology: Geologic study of the configuration and evolution of landforms.

Grader: A piece of heavy equipment used to level or smooth road or other surfaces to the desired gradient.

Granitic rocks: Igneous rocks (intrusive magma) that have cooled slowly below the earth's surface, typically consisting of quartz, feldspar, and mica. In contrast to granitic rocks, if magma erupts at the earth's surface, it is referred to as lava. Lava, when cooled, forms volcanic rocks.

Groundwater: All subsurface water (below soil/ground surface), distinct from surface water.

Groundwater recharge: The process involved in the absorption and addition of surface water to the zone of saturation or aquifer.

Hazardous material: A substance or combination of substances that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may either: (i) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or

incapacitating illness; or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, disposed of, or otherwise managed.

Hazardous waste: Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, spilled, or contaminated, or that are being stored temporarily prior to proper disposal.

Headwaters: The point or area of origin for a river or stream.

Hydrophytes: Any plant growing in water or in a substrate that is at least periodically deficient in oxygen as a result of excessive water. Plants typically found in wetland habitats.

Impoundment: A dam or other structure to obstruct the flow of water in a river or stream.

Jack: A usually portable device for raising heavy objects by means of force applied with a lever, screw, or hydraulic press. Also a wooden or metal wedge for cleaving rock.

Main stem (Merced River): The sections of the Merced River beginning at the headwaters near the Sierra Crest and continuing through Yosemite Valley, the Merced River gorge, El Portal, and further downstream.

Management zone: A geographical area for which management directions or prescriptions have been developed to determine what can and cannot occur in terms of resource management, visitor use, access, facilities or development, and park operations. One of seven management elements prescribed in the *Merced Wild and Scenic River Comprehensive Management Plan*.

Mitigation: Activities that will avoid, reduce the severity of, or eliminate an adverse environmental impact.

National Environmental Policy Act: The federal act that requires the development of an environmental assessment or environmental impact statement for federal actions that have environmental, social, or other impacts.

Natural processes: All processes (such as hydrologic, geologic, or ecosystemic) that are not the result of human manipulation.

No Action Alternative: The alternative in a plan that proposes to continue current management direction. “No action” means the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

Non- native species: Species of plants or wildlife that are not native to a particular area and often interfere with natural biological systems.

Nonpoint pollution sources: Pollutants that enter the environment from locations that generally are not contained. Examples of nonpoint sources are roadways, parking lots, and landscaped areas. Pollutants from these locations can include petrochemicals, heavy metals, and fertilizers.

Ordinary high water: The line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area.

Outstandingly Remarkable Values: Those resources in the corridor of a Wild and Scenic River that are of special value and warrant protection. Outstandingly Remarkable Values are the

“scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values... that shall be protected for the benefit and enjoyment of present and future generations” (16 USC 1272).

Palustrine: The palustrine system was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie, which are found throughout the United States. It also includes the small, shallow, permanent, or intermittent water bodies often called ponds. Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes. They may also occur as islands in lakes or rivers. The palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean- derived salts is below 0.5%. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave- formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 meters at low water; and (4) salinity due to ocean- derived salts less than 0.5%.

Particulate matter (PM- 10 and PM- 2.5): Fractions of particulate matter characterized by particles with diameters of 10 microns or less (PM- 10) or 2.5 microns or less (PM- 2.5). Such particles can be inhaled into the air passages and the lungs and can cause adverse health effects. High levels of PM- 2.5 are also associated with regional haze and visibility impairment.

Pavement structure: The combination of subbase, base, and surface courses placed on a subgrade to support and distribute the traffic load to the roadbed.

Pluton: A general term applied to any body of intrusive igneous rock that originates deep in the earth. Named for Pluto, Greek god of the underworld.

Prescription: A guideline that directs the management of a specific area by describing the type and intensity of activities, facilities, and park operations that can and cannot occur (see management zone).

Riparian areas: The land area and associated vegetation bordering a stream or river.

Riverine: Of or relating to a river. A riverine system includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens; and (2) habitats with water containing ocean-derived salts in excess of 0.5%. A channel is an open conduit either naturally or artificially created, which periodically or continuously contains moving water or forms a connecting link between two bodies of standing water.

River corridor: The area within the boundaries of a Wild and Scenic River (e.g., the Merced and South Fork of the Merced River corridor).

River- left: Directional reference for viewing rivers, with the orientation of one standing in the middle of the river looking downstream. River- left is the left- hand side of the river when one is looking downstream.

River- right: Directional reference for viewing rivers, with the orientation of one standing in the middle of the river looking downstream. River- right is the right- hand side of the river when one is looking downstream.

River protection overlay: A buffer area within and adjacent to the river that allows for the protection and restoration of natural and aquatic ecosystem processes. In Yosemite Valley, it includes the river channel itself and extends 150 feet from the ordinary high water mark. One of seven management elements prescribed in the *Merced Wild and Scenic River Comprehensive Management Plan*.

Roadbed: The graded portion of a highway prepared as a foundation for the pavement structure and shoulders.

Section 35: An area of private housing, schools, and facilities occupying an inholding within Yosemite National Park boundaries.

Sediment: A particle of soil or rock that was dislodged, entrained, and deposited by surface runoff or a stream. The particle can range in size from microscopic to cobblestones.

Shoring: This term is used interchangeably with false work.

Shoulder: The portion of the roadway contiguous to the traveled way for accommodation of stopped vehicles, for emergency use, and for lateral support of the pavement structure.

Skid steer loader: A piece of machinery used to lift and transport heavy material with a bucket attachment. The term “skid steer” refers to the loader's unique steering system, which allows it to turn 360- degrees within its own length.

Specifications: The written requirements for performing work.

Structures: Bridges, culverts, catch basins, drop inlets, retaining walls, cribbing, manholes, endwalls, buildings, sewers, service pipes, underdrains, foundation drains, and other features that may be encountered in the work.

Talus: Rock fragments of any size or shape derived from and lying at the base of a cliff or very steep rocky slope. Also refers to outward sloping and accumulated heap of loose, broken rock considered as a unit and formed primarily by falling, rolling, or sliding.

Threatened and endangered species: Species of plants that receive special protection under state and/or federal laws. Also referred to as “listed species” or “special- status species.”

U- shaped valley: A glacially carved valley having a pronounced parabolic cross- sectional profile suggesting the form of a broad letter “U” and characterized by steep sides and a nearly flat bottom.

Visitor Experience and Resource Protection (VERP) Framework: A process developed for the National Park Service to help manage the impacts of visitor use on visitor experiences and resource conditions in national parks. One of seven management elements prescribed in the *Merced Wild and Scenic River Comprehensive Management Plan*.

Water resources project: Any dam, water conduit, reservoir, powerhouse, transmission line, or other works project under the Federal Power Act, or other developments that would affect the free- flowing characteristics of a wild and scenic or congressionally authorized study river. In addition to projects licensed by the Federal Energy Regulatory Commission, water resources projects may also include: dams, water diversions, fisheries habitat and watershed restoration, bridges and other roadway construction/reconstruction projects, bank stabilization projects, channelization projects, levee construction, boat ramps, fishing piers, and activities that require a Section 404 permit from the U.S. Army Corps of Engineers (IWSRCC 1999).

Watershed: The region drained by, or contributing water to, a stream, lake, or other body of water. Synonym: basin or drainage basin.

Wetland: Wetlands are defined by the U.S. Army Corps of Engineers (Code of Federal Regulations, Section 328.3[b], 1986) as those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

Wild and Scenic Rivers: Those rivers receiving special protection under the Wild and Scenic Rivers Act.

Wilderness: Those areas protected by the provisions of the 1964 Wilderness Act. These areas are characterized by a lack of human interference in natural processes.

Wingwall: Structural support component of a bridge, typically concrete, that extends from the back face of the bridge abutment to the riverbank.

Acronyms

CFR	Code of Federal Regulations
cfs	Cubic feet per second
cm	Centimeter
dB	Decibels
dba	Decibels on the “A” - weighted scale
HAER	Historic American Engineering Record
NO_x	Nitrogen oxide
NPS	National Park Service
PL	Public Law
PM- 10	Particulate matter less than 10 microns
PM- 2.5	Particulate matter less than 2.5 microns
USC	United States Code
VERP	Visitor Experience and Resource Protection
YARTS	Yosemite Area Regional Transportation System